PYTHON BASIC

(DAY 4)

5. Dictionary: -

IT IS DIFFERENT FROM SET IN ONLY ONE MANNER THAT IT HAS VARIABLE AND IT'S VALUE SO THAT WE CAN DIFFERENTIATE VALUES AND VARIABLES

# <<<<<<<<<<<<<<<<<<<<<<<<<<<<< DICTIONARY >>>>>>>>>>>>>>>>>>>>>>

# IT IS DIFFERENT FROM SET IN ONLY ONE MANNER THAT IT HAS VARIABLE AND IT'S VALUE SO THAT WE CAN DIFFERENTIATE VALUES AND VARIABLES

# eg:- we need construct a set a student with their numbers of maths subject then we can't substitute value of maths marks in set that's why we use dictionary

# dict = {key:value} duplicate key is not allowed

d = { 'mohit':23, 'Abhishek kuntal':65, 'Aditya':56, 65:'abhishek' , 'mohit':34}

print(d['Abhishek kuntal']) #var[key] to excess value of key

print(d[65])

print(type(d))

print(d['mohit']) #if two key are similar then it can last value

d['Abhishek kuntal']=75 #update value of any particular key

print(d)

d['Abhishek kuntal','Aditya','mohit']=79,63,56 #it take('Abhishek kuntal','Aditya','mohit') as a single entity

print(d)

d['rahul']=35 #if we are updating any value of key and key is not exist in dictionary then it will behave as inserting

print(d.keys()) #to print all keys of dictionary only

print(d.values()) #to print all values of dictionary only

# remove any key value pair from dictionary

d.pop('rahul')

print(d)

d.pop('Aditya', 'mohit')

print(d)

# create a dictionary which have 5 student names,marks,subject

students = {'Name':['abhishek','rohit','mohit','ritu','yash','jugnu'], 'Marks':[79,52,14,36,45,96], 'Subject':'Science'}

print(students)

print(type(students))

print(students['Name'])

print(students['Marks'])

print(students['Subject'])

science\_marks = {'Name':['abhishek','rohit','mohit','ritu','yash','jugnu'], 'Marks':[79,52,14,36,45,96], 'Subject':'Science'}

# we have to remove "ritu" and her marks

science\_marks['Name'].remove('ritu') #science\_marks['Name'] is a list so we can perform any list operation on that

science\_marks['Marks'].remove(36)

print(science\_marks)

# lets update marks of mohit by 41

science\_marks['Marks'][2]=41

print(science\_marks)

TYPE CASTING

Typecasting in Python, also known as type conversion, is the process of converting one data type into another. Python provides built-in functions for typecasting, allowing you to convert between different types like integers, floats, strings, and more.

### **Common Typecasting Functions**

**int()**: Converts a value to an integer.

**float()**: Converts a value to a float.

**str()**: Converts a value to a string.

**list()**: Converts a value to a list.

**tuple()**: Converts a value to a tuple.

**set()**: Converts a value to a set.

**dict()**: Converts a value to a dictionary.

# <<<<<<<<<<<<<<<< TYPE CASTING >>>>>>>>>>>>>>>>>>

# int(), float(), str(), list(), tuple(), list(), set(), dict()

num1=10

num1=float(num1) #int convert into float

print(num1) #10.0

print(type(num1))

num2=20.25

num2=int(num2) #float convert into int

print(num2) #20

print(type(num2))

ls=[10,1,0,10,80,90,80,80,45,90]

# let remove duplicate values in "ls" list with help of type casting

ls = set(ls) #set remove all duplicate value

ls = list(ls)

print(ls)

print(type(ls))

OPERATORS

In Python, operators are special symbols that perform operations on variables and values. Python has several types of operators:

Arithmetic Operators

Comparison (Relational) Operators

Assignment Operators

Logical Operators

Bitwise Operators

Membership Operators

Identity Operators

# <<<<<<<<<<<<<<<<<< Operators >>>>>>>>>>>>>>>>>

# 1. Arithmatic Operators

num1 =int(input("Plz Enter Num 1 : ")) #input always takes value as a string that's why typecast input into your desire datatype

num2 =int(input("Plz Enter Num 2 : "))

# add "+"

output = num1+num2

print(output)

#subtract "-"

output = num1-num2

print(output)

#multiply "\*"

output = num1\*num2

print(output)

#divide "/"

output = num1/num2 #it is different from other language like c++,java because "/" give int,float value depend on type of operand and in python "/" give only float value. So, if you want only int value then type cast it into int.

# output = int(num1/num2)

print(output)

# module "%" give reminder

output = num1%num2

print(output)

# "\*\*" it is power operator

output = num1\*\*num2;

print(output)

# "//" floor division operator (it gives quotients of a/b )

output = num1//num2;

print(output)